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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,791	01/23/2004	Pengfei Zhang	026661-004310US	6141

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EXAMINER

DIMYAN, MAGID Y

ART UNIT	PAPER NUMBER
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2825

MAIL DATE	DELIVERY MODE
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01/31/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/762,791	ZHANG ET AL.	
	Examiner	Art Unit	
	Magid Y. Dimyan	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is with regards to the communication filed 02/12/2007. It is acknowledged that Applicants have elected claims 2 – 8 for prosecution, cancelled non – elected claim 1, and amended claims 3 and 6 – 7 in order to clarify the claim language as a result of the restriction requirement. Claims 2 – 8 are still pending in this Application.

Specification/Drawings

2. 37 CFR 1.174 states in part “the detailed description of the invention shall refer to the different views by specifying the numbers of the figures, and to the different parts by use of reference letters or numerals”. The drawings and the specification are both objected to for failing to meet this requirement and both need to be amended to add reference numerals, and for the specification to refer to the Figures (there are no references to Figs. 1 and 2 in the specification). Furthermore, the specification, and in particular Figure 2 of the drawings, make numerous references to “mean of...”. These occurrences should be changed to “means of...”

Claim Objections

3. **Claims 3 – 8** are objected to because of the following issues:

- Claim 3, line 1, delete “A” and insert –The--; Claim 3, lines 5, 6, 8, 9, 12, 13, 24, 27 and 29, delete “; and” and insert –;--; Claim 3, line 6, delete “memories” and insert –memory--; Claim 3, lines 30 and 31, delete “and said” and insert –said--.

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- Claim 4, lines 5, 6, 10 and 17, delete “; and” and insert --;--; Claim 4, line 18, delete “Whereby” and insert --whereby--; Claim 4, line 19, delete “a_ and” and insert --an--.
- Claim 5, line 3, delete “Proving” and insert --Providing--; Claim 5, lines 3, 4 and 11, delete “; and” and insert --;--; Claim 5, line 12, delete “Whereby” and insert --whereby--; Claim 5, line 12, delete “a RF” and insert --an RF--.
- Claim 6, line 1, delete “mean” and insert --means--; Claim 6, lines 6 and 7, delete “; and” and insert --;--.
- Claim 7, line 1, delete “mean” and insert --means--; Claim 7, lines 6 and 7, delete “; and” and insert --;--.
- Claim 8, line 1, delete “mean” and insert --means--.

4. Applicants are encouraged to check the claim language very carefully to make sure there are no other issues in the claims. Appropriate correction is required.

Double Patenting

5. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

6. **Claim 2** is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 2 of copending Application No. 10/762,781 This is a

provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claims 2 – 8** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Referring to claim 2, the claim language is in an unrecognized format that is vague, confusing and ambiguous. It appears to be a method claim but has no step to be performed, and is just an extended preamble that does not carry patentable weight. Claim 3, step (e) refers to “claim 1” which has been cancelled by applicants. The claimed elements of “providing a memory” (see claim 3, 4 and 5) are confusing and vague, and require rewording. Several of the claims (see for example claims 6 and 7) depend on a multiple of other dependent claims, which are hard to read and understand. Applicants should modify the claim language to obviate this issue of multiple dependencies. Applicants refer to a “multitude circuit layout constraints” in claim 3 without providing any clear explanation of the meaning of that limitation, or providing an antecedent basis. Furthermore, claim 2, claim 3 step (g), claim 6 step (a), claim 4, step (d), claim 7 step (a) , and claim 8 are written in a manner that is punctually and grammatically incorrect, which further lead to confusion. All the claims of this Application contain numerous 35 USC 112 2nd paragraph issues, and the Examiner has

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cited a few of these issues. Applicants should carefully review all the claims and ensure that all issues are corrected.

9. For the purpose of the following rejection, claim 2 of this application is being interpreted as a signal flow circuit physical synthesis method comprising the steps of tracing a signal flow, and placing/routing a circuit physical layout including a high priority critical signal path automatically by a software program.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. “A Timing - Driven Data Path Layout Synthesis with Integer Programming”).**

12. Referring to claim 2, Kim et al. discloses a signal flow circuit physical synthesis method (see page 716, the section entitled “Introduction”), comprising the steps of: (a) tracing a signal flow (see page 716, the section entitled “Data Path Synthesis”); and (b) placing/routing a circuit physical layout including a high priority critical signal path automatically using a software program (see pages 716 – 719, the sections entitled “Placement” and “Routing”). Thus Kim et al. **clearly teaches** all the claimed limitations.

Allowable Subject Matter

13. **Claims 3 - 8** would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action, as well as the objections cited above, and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magid Y. Dimyan whose telephone number is (571) 272-1889. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on (571) 272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Magid Y Dimyan
Examiner

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24 January 2008

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//Stacy A Whitmore//

Primary Examiner, Art Unit 2825